

## Product datasheet for **MG208966**

### **Btrc (NM\_009771) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Btrc (NM_009771) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Btrc
Synonyms:	b-TrCP; beta-TrCP; Beta-Trcp1; E3RS-IkappaB; E3RSIkappaB; Fbw1a; FWD1; HOS; Slimb
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG208966 representing NM\_009771  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACCCGGCAGAGCGGTGCTGCAGGAGAAAGCGCTTAAGTTTATGAATTCCTCAGAGAGAGAAGACT  
 GTAATAATGGCGAACCCCTAGGAAGATAATACCAGAGAAGAATTCACCTTAGACAGACTTACAACAGCTG  
 TGCCAGGCTTTGCATAAAACCAAGAGACAGTATGCTAACAAGCACTGCTATGAAGACTGAAAATTGTGTG  
 GCCAAAGCCAACTTGCCAATGGCACTTCCAGCATGATTGTGCCAAGCAGCGGAACTCTCAGCAAGCT  
 ATGAGAAGGAAAAGGAGCTGTGTGTCAAGTATTTTGGCAGTGGTCTGAGTCTGATCAAGTGAATTTGT  
 AGAACACCTTATATCCCAATGTGTCACTACCAGCATGGGCACATCAACTCCTACCTAAAACCTATGCTG  
 CAGAGGGATTTTCATAACTGCACTGCCAGCACGGGGTCTGGACCACATCGTGAGAACATTCTGTCATACT  
 TGGACGCCAAGTCACTGTGTGCTGCTGAGCTCGTGTGCAAGGAATGGTACCGCGTGACGTCGGACGGCAT  
 GCTGTGAAAAAGCTCATCGAGAGGATGGTCAGGACGGACTCTCTGTGGCGAGGCCTGGCAGAGCGCAGA  
 GGCTGGGGACAGTACTTATTCAAAAACAACTCCTGATGAGAACGCTCCTCCAACTCCTTTTATAGAG  
 CGCTTTATCCTAAAATCATAACAAGACATTGAGACAATAGAGTCCAATTGGAGATGTGGGCGACATAGTTT  
 ACAGAGAATCCACTGCCGGAGTGAACAAGTAAAGGGTTTACTGTTTACAGTACGACGACCAGAAGATA  
 GTCAGCGGCCCTTCGAGACAACACCATCAAGATCTGGGATAAAAGCACACTGGAATGCAAGCGGATTTCTCA  
 CGGGCCACACGGGCTCCGTCCTGTGTCTGCAGTACGATGAGAGGGTGATCATCACAGGCTCCTCAGACTC  
 CACCGTCAGAGTGGGATGTAATGCAGGTGAGATGCTAAACACATTGATTCACCACTGTGAAGCCGTT  
 CTGCACCTCGCCTTCAATAATGGCATGATGGTACCTGCTCCAAGACCGTCCATCGCTGTGTGGGATA  
 TGGCTTCCCACTGACATCACCTCAGGAGGGTCTGGTGGGACACCGAGCTGCGGTCAATGTTGTAGT  
 CTTTGTAGACAAGTACATCGTTTCTGCCTCTGGAGATAGAACCATAAAGGTGTGGAACACAAGTACCTGT  
 GAATTCGTAAGGACCCTAAATGGGCACAAGCGTGGCATCGCTGTTTGCAGTACAGAGACAGGCTGGTGG  
 TGAGCGGCTCCTCTGACAACACCATCAGGCTGTGGGACATAGAGTGTGGAGCATGCCTGCGAGTGTGGGA  
 GGGCCATGAGGAGTTGGTACGCTGCATTGATTTGATAACAAAAGGATAGTGAGCGGAGCCTATGATGGG  
 AAAATTAAGTGTGGGATCTTATGGCTGCTTGGACCCTCGTCTCCAGCAGGGACTCTCTGTCTGCGGA  
 CACTTGTGGAGCATTCTGGAAGAGTTTTCCGCTCCAGTTTGTGATTCAGATTGTGAGTATTCACA  
 TGATGACACAATTCTCATCTGGACTTCTGAATGATCCAGCTGCTCACGCTGAACCGCCCCGCTCCCT  
 TCTCGGACATACCTACATCTCCAGA

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG208966 representing NM\_009771  
 Red=Cloning site Green=Tags(s)

MDPAEAVLQEKALKFMNSSEREDCNNGEPPRKIIPEKNSLRQTYNSCARLCINQETVCLTSTAMKTENCY  
 AKAKLANGTSSMIVPKQRKLSASYEKEKELCVKYFEQWSESDQVEFVEHLISQMCHYQHGHSYKPLML  
 QRDFITALPARGLDHAENILSYLDAKSLCAAELVCKEYRVTS DGMLWKKLIERMVRTDSLWRGLAERR  
 GWGQYLFKNKPPDENAPPNSFYRALYPKIIQDIETIESNWRGRHSLQRIHCRSETSKGVYCLQYDDQKI  
 VSGLRDNTIKIWDKSTLECKRILTGHTGSVLCQYDERVITGSSDSTVRVWDVNAGEMNLIIHCEAV  
 LHLRFNNGMMVTCSKDRSIAVWDMASPTDITLRRVLVGHRAAVNVVDFDDKYIVSASGDRTIKVWNTSTC  
 EFVRTLNHGKRGIAQLQYRDRLVVS GSSDNTIRLWDIECGACLRVLEGEHELVR CIRFDNKRIVSGAYDG  
 KIKVWDLMAALDPRAPAGTLCRLTLVEHSGRVFRLQFDEFQIVSSSHDDTILIWDFLNDPAAHAEP RSP  
 SRTYTYISR

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

SgfI-MluI



<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_009771.1</a> , <a href="#">NP_033901.1</a>
<b>RefSeq Size:</b>	6250 bp
<b>RefSeq ORF:</b>	1710 bp
<b>Locus ID:</b>	12234
<b>UniProt ID:</b>	<a href="#">Q3ULA2</a>
<b>Cytogenetics:</b>	19 C3

**Gene Summary:**

Substrate recognition component of a SCF (SKP1-CUL1-F-box protein) E3 ubiquitin-protein ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins. Recognizes and binds to phosphorylated target proteins (PubMed:10097128, PubMed:16371461, PubMed:18782782, PubMed:9859996, PubMed:9990853, PubMed:21911472). SCF(BTRC) mediates the ubiquitination of phosphorylated NFKB, ATF4, CDC25A, DLG1, FBXO5, PER1, SMAD3, SMAD4, SNAI1 and probably NFKB2. SCF(BTRC) mediates the ubiquitination of CTNNB1 and participates in Wnt signaling (By similarity). SCF(BTRC) mediates the ubiquitination of NFKBIA, NFKBIB and NFKBIE; the degradation frees the associated NFKB1 to translocate into the nucleus and to activate transcription (PubMed:9859996, PubMed:10097128). Ubiquitination of NFKBIA occurs at 'Lys-21' and 'Lys-22' (PubMed:9859996, PubMed:10097128). SCF(BTRC) mediates the ubiquitination of CEP68; this is required for centriole separation during mitosis (By similarity). SCF(BTRC) mediates the ubiquitination and subsequent degradation of nuclear NFE2L1 (PubMed:21911472). Has an essential role in the control of the clock-dependent transcription via degradation of phosphorylated PER1 and PER2 (PubMed:18782782). May be involved in ubiquitination and subsequent proteasomal degradation through a DBB1-CUL4 E3 ubiquitin-protein ligase (By similarity). Required for activation of NFKB-mediated transcription by IL1B, MAP3K14, MAP3K1, IKBKB and TNF (By similarity). Required for proteolytic processing of GLI3 (PubMed:16371461). Mediates ubiquitination of REST, thereby leading to its proteasomal degradation (By similarity).[UniProtKB/Swiss-Prot Function]